

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Currently Amended) A method for resolving data collision in a network shared by a plurality of users, the method comprising:

 sending a first back-off window to ~~more than one~~ each of the plurality of users of the network;

 calculating a second back-off window based on at least one operational characteristic of the network; and

 sending the second back-off window to ~~more than one~~ each of the plurality of users of the network.

2. (Currently Amended) The method of claim 1, further comprising calculating subsequent back-off windows based on at least one operational characteristic of the network and sending the subsequent back-off windows to ~~more than one~~ each of the plurality of users of the network.

3. (Original) The method of claim 1, wherein calculating a second back-off window based on at least one operational characteristic comprises calculating the back-off window based on collision rate in the network.

4. (Currently Amended) The method of claim 3, further comprising the step of estimating the collision rate based on a status of at least ~~one~~ every four reservation slots.

5. (Original) The method of claim 1, wherein the step of calculating the second back-off window based on at least one operational characteristic comprises calculating the back-off window to maintain a collision rate of approximately $1-2/e$.

6. (Original) The method of claim 1, wherein the step of calculating the second back-off window based on at least one operational characteristic comprises calculating

the back-off window to maintain a collision rate of approximately between .2 and .4.

7. (Currently Amended) The method of claim 1, further comprising dynamically calculating subsequent back-off windows to maintain a substantially constant collision rate and sending the subsequent back-off windows to ~~more than one~~ each of the plurality of users of the network.

8. (Original) The method of claim 1, wherein the step of calculating the second back-off window based on at least one operational characteristic comprises calculating the back-off window based on a number of users on the network.

9. (Original) The method of claim 1, wherein the step of calculating the second back-off window based on at least one operational characteristic comprises calculating the back-off window to maintain the back-off window approximately equal to a number of users.

10. (Currently Amended) A method for resolving data collision in a shared network, the method comprising,
sending a common back-off window to each of a plurality of users of the network;
and
recalculating and sending new back-off windows to ~~at least some~~ each of the plurality of users to increase throughput of the network.

11. (Original) The method of claim 10, wherein the step of dynamically recalculating and sending new back-off windows comprises calculating the back-off windows to maintain a substantially constant collision rate.

12. (Currently Amended) The method of claim 11, further comprising the step of estimating the collision rate based on the status of at least ~~one~~ every four reservation slots.

13. (Original) The method of claim 10, wherein the step of dynamically recalculating and sending new back-off windows comprises calculating the back-off windows to maintain a substantially constant collision rate of $1-2/e$.

14. (Original) The method of claim 10, wherein the step of dynamically recalculating and sending new back-off windows comprises calculating the back-off windows to maintain a substantially constant collision rate of approximately between .2 and .4.

15. (Original) The method of claim 10, wherein the step of dynamically recalculating and sending new back-off windows comprises calculating the back-off windows based on a number of users on the network.

16. (Original) The method of claim 10, wherein the step of dynamically recalculating and sending new back-off windows comprises calculating the back-off windows to maintain the back-off window approximately equal to a number of users.

17. (Currently Amended) A system for resolving data collisions in a shared network, comprising:

- a plurality of remote devices; and

- an access point in communication with the plurality of remote devices, wherein the access point further comprises:

- a switch for communicating with the plurality of remote devices;

- a transceiver for sending information to and receiving information from the plurality of remote devices; and

- a collision resolution device that calculates an initial back-off window to be sent to each of the plurality of remote devices and dynamically adjusts a back-off window to substantially maintain a predetermined constant collision rate.

18. The system of claim 17, wherein the collision resolution device dynamically adjusts the back-off window to substantially maintain a constant collision rate of approximately $1-2/e$.

19. The system of claim 17, wherein the collision resolution device estimates the collision rate of the network from a status of reservation slots.